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EXAMINER

CHOW, CHIH CHING

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2191

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/807,694

Applicant(s)

OKKONEN ET AL.

Examiner

Chih-Ching Chow

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to amendment dated April 27, 2007.
2. Per Applicants' request, no amendment has been made, the Examiner has reconsidered the arguments.
3. Claims 1-39 remain pending.

Response to Arguments

4. Applicant's arguments, see REMARKS pp. 10-19, filed on April 17, 2007, with respect to Lee and Lee CY's references are disqualified as prior art under 35 USC § 103 (a) rejections, have been fully considered and are persuasive. The rejections of these claims under 35 USC § 103 (a) have been withdrawn. However, claims 1-39 are not in condition for allowance for the reasons listed hereinafter.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 6, 7, 10-19, 21, 22, 25-39 are rejected under 35 U.S.C. 103(a) as being obvious over US 2004/0031029 by Lee et al., hereinafter "Lee", in view of prior art of record, US Patent No. 6,976,251, by Meyerson, hereinafter "Meyerson".

CLAIM

1. An electronic device network, the network comprising:
a plurality of servers; and
a plurality of electronic devices
communicatively coupled to at least one

Lee / Meyerson

Lee teaches a method for updating software on a plurality of networked devices. See Lee's paragraph 0009, "updating a plurality of software components disposed on a plurality of

of the plurality of servers, each of the electronic devices being adapted to employ at least one of a plurality of update agents resident in the electronic device, wherein the update agent employed is selected to correspond to a type of update information received by the electronic device from the at least one of the plurality of servers, wherein the selected update agent processes the received update information to modify a first version of one of software and firmware in the electronic device to a second version, and wherein the electronic device is also adapted to provision the plurality of update agents with parameters and data used to facilitate update operations in the electronic device.

networked devices, the plurality of networked devices being interconnected if a computer network...the method further includes obtaining, using the **first local update agent** and the **first update parameters**, a **first update file for updating software in the first networked device**. Additionally, the method includes updating, using the first local update agent and the first update file, the software in the first networked device.” And paragraph 0032, “Administrative console 104 is coupled via the network to a **plurality of networked devices such as servers 106, 108, and 110.**” Lee teaches all aspects of claim 1, but he does not mention ‘update agent is selected to correspond to a type of update information’ specifically, however, Meyerson teaches it in an analogous prior art. In Meyerson’s column 4, lines 38-50, “After the software update query is sent, the software update information is downloaded in block 14. In the simplest case, where **the update agent corresponds to a single software program** (*a plurality of update agents resident in the electronic device*), the software update information may simply be a ‘yes’ or ‘no’ telling the agent whether a software update is available and whether a criticality check program is available. In the more general case, however, the software update information will include substantial additional information for multiple software programs. In the preferred

implementation of the invention, the software update information will include a field telling the update agent whether a criticality check program is available for each software update.” And Meyerson’s column 4, lines 10-16, “it proceeds to block 12 where the intelligent update agent sends a software update query comprising a request for software update information. The software update query is sent over a computer network, such as the Internet. In one implementation of the invention, the intelligent update agent is designed specifically for and may be incorporated into particular software.”

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Lee’s disclosure of the updating software for networked devices by using corresponding update agent taught by Meyerson, for the purpose of routing the update request to a corresponding update agent for the specific software and/or hardware configuration of the user’s computer. (Meyerson’s column 2, lines 30-35).

2. The network according to claim 1, wherein the electronic device comprises random access memory and non-volatile memory, wherein the non-volatile memory comprises a plurality of components, the plurality of components comprising at least one of the following: an update application loader, the plurality of update agents,

For the feature of claim 1 see claim 1 rejection. For the rest of claim 2 feature see Lee’s paragraph [0001], “These networked devices include, for example, routers, hubs, servers, workstations, desktop computers, laptop computers, printers, storage devices, printers and/or other output devices, and the like (*all are electronic devices*). As is well

firmware, an operating system (OS), and provisioned data, wherein the provisioned data comprises update agent provisioning information and a number assignment module.

known, each of the networked devices may include many different hardware components each of which may be furnished with software (such as system software, application software, firmware, driver, or the like)”

3. The network according to claim 1, wherein the network further comprises at least one of an update server, and a plurality of generators, wherein the generators are adapted to generate updates able to be processed by at least one provisioned update agent in the electronic device, and wherein the update server is adapted to store updates accessible by the plurality of servers.

See claim 1 and 2 rejections.

4. The network according to claim 1, wherein the electronic device further comprises a provisioned data unit adapted to store information related to an end-user's electronic device subscription, and wherein the provisioned data unit may be programmed during number assignment module programming activity.

For the feature of claim 1 see claim 1 rejection. For the rest of claim 4 feature see claim 1 and Lee's paragraph 00037, "Notification module 308 represents the module for collecting the status information and/or notification messages from the various components of the automatic software update system. The notification messages may be sent to administrator console 302 and/or may be employed to automatically trigger other steps." And description on paragraph 0039 (*programmed number assignment module for programming activity*).

6. The network according to claim 4, wherein the provisioned data unit is adapted to store at least one of update agent related provisioning information,

For the feature of claim 4 see claim 4 rejection. For the rest of claim 6 see Lee's paragraph 0055, "In one embodiment, the update files(s) are

a universal resource locator of a server used to retrieve updates, and a security key used to authenticate server messages.

stored on a shared storage device coupled to the network and are accessed by their path name(s), which may be received as part of the update parameters. In another embodiment, the update file(s) are **accessed by their URL (Uniform Resource Locator)**, which may be received as part of the update parameters and downloaded using the HTTP protocol”

7. The network according to claim 4, wherein each of the plurality of update agents has a corresponding entry in the provisioned data unit.

For the feature of claim 4 see claim 4 rejection. For the corresponding entry in the provisioned data unit, see claim 1 rejection.

10. The network according to claim 1 wherein the electronic device is adapted to invoke an update agent based upon an update currently being processed provided that the update agent is provisioned in the electronic device.

See claim 1 rejection.

11. The network according to claim 1, wherein the electronic device may execute an update application loader on reboot, and wherein the update application loader is adapted to invoke a boot initialization code before determining to update the electronic device.

For the feature of claim 1 see claim 1 rejection. For the rest of claim 11 see Lee’s paragraph 0023, “The local update agent then obtains the update file, performs the installation as required (**which may include rebooting the networked device** after installation)”.

12. The network according to claim 1, further comprising update agent provisioning information stored in the electronic device, the update agent provisioning information comprising at least one of the following: a device

For the feature of claim 1 see claim 1 rejection. For the rest of claim 12, see Lee paragraph 0055, “In one embodiment, the update files(s) are stored on a shared storage device coupled to the network and are accessed by their path name(s), which may be

server URL, an index of provisioned update agents, a security key, and electronic device related information, wherein the device server URL provides references to servers hosting updates to be downloaded, and wherein the update are compatible with update agents currently available and provisioned in the electronic device.

received as part of the update parameters. In another embodiment, the update file(s) are **accessed by their URL (Uniform Resource Locator)**, which may be received as part of the update parameters and downloaded using the HTTP protocol.”

13. The network according to claim 12, wherein the index of provisioned update agents provides an index value used to compute an address location of a provisioned update agent, and wherein the index of provisioned update agents provides an index to a table containing an address for an update agent in non-volatile memory the electronic device.

For the feature of claim 12 see claim 12 rejection. For the rest of claim 13, see claim 7 rejection.

14. The network according to claim 12, wherein the security key is used to authenticate updates during download of updates and during update activity, wherein a separate security key is employed to authenticate updates by a download agent and by the update agent, and wherein the security key is employed for at least one of the following: secure communication, encryption, and decryption of data and messages during communication with external systems.

For the feature of claim 12 see claim 12 rejection. For the rest feature of claim 14 see claim 6 rejection.

15. The network according to claim 1, wherein the electronic device further comprises an update agent table resident in non-volatile memory, the update

For the feature of claim 1 see claim 1 rejection. For the rest feature of claim 15 see claim 7 rejection.

agent table containing references to a plurality of update agents currently available and provisioned in the electronic device, the update agent table associating update agent names, update agent address locations, types of updates that the update agents are adapted to process, and provisioning status of the update agents for all available update agents in the electronic device.

16. The network according to claim 1, wherein the electronic device comprises at least one of a plurality of mobile electronic devices, and wherein the plurality of mobile electronic devices comprise at least one of the following: a mobile cellular phone handset, a personal digital assistant, a pager, an MP3 player, and a digital camera.

17. A method employing a plurality of update agents in an electronic device in an electronic device network, the method comprising:

- communicatively coupling a plurality of electronic devices to at least one of a plurality of servers;

- selecting at least one of a plurality of update agents resident in the electronic device to modify a first version of one of software and firmware in the electronic device to produce an updated version, wherein each of the plurality of update agents is arranged to process a corresponding type of update information received from the at least one of a plurality of servers; and

For the feature of claim 1 see claim 1 rejection. For the rest feature of claim 16 see claim 5 rejection.

Claim 17 is a method version of claim 1, therefore see claim 1 rejection.

provisioning the plurality of update agents with parameters and data used to facilitate update operations in the electronic device.

18. The method according to claim 17, further comprising generating updates able to be processed by at least one provisioned update agent in the electronic device and storing updates in an update server.

For the feature of claim 17 see claim 17 rejection. For the rest of claim 18 feature see claim 1 and claim 3 rejections.

19. The method according to claim 17, further comprising:
storing information related to an end-user's electronic device subscription;
and
programming a provisioned data unit during number assignment module programming activity.

For the feature of claim 17 see claim 17 rejection. For the rest of claim 19 feature see claim 4 rejection.

21. The method according to claim 19, wherein the programming further comprises storing update agent related provisioning information, a universal resource locator of a server used to retrieve updates, and a security key used to authenticate server messages.

For the feature of claim 19 see claim 19 rejection. For the rest of claim 21 feature see claim 6 rejection.

22. The method according to claim 19, further comprising providing each update agent an entry in a provisioned data unit.

For the feature of claim 19 see claim 19 rejection. For the rest of claim 22 feature see claim 7 rejection.

25. The method according to claim 17, further comprising invoking an update agent based upon an update currently being processed provided that the

For the feature of claim 17 see claim 17 rejection. For the rest of claim 25 feature see claim 10 rejection.

update agent is provisioned in the electronic device.

26. The method according to claim 17, further comprising executing an update application loader on reboot of the electronic device and invoking a boot initialization code before determining to update the electronic device.

27. The method according to claim 17, further comprising:
storing update agent provisioning information in the electronic device; and
hosting updates to be downloaded with update agents provisioned in the electronic device.

28. The method according to claim 17, further comprising determining an address location of a provisioned update agent, wherein determining comprises one of computing and accessing an entry in a table.

29. The method according to claim 17, further comprising:
authenticating updates during download of the updates and during update activity, using a security key;
employing a separate security key to authenticate updates by a download

For the feature of claim 17 see claim 17 rejection. For the rest of claim 26 feature see claim 11 rejection.

For the feature of claim 17 see claim 17 rejection. For the rest of claim 27 feature see claim 1 rejection.

For the feature of claim 17 see claim 17 rejection. For the rest feature of claim 28, generating updates provided from plurality of agents (addresses) in particular, see Meyerson's column 4, lines 14-18, "the intelligent update agent is designed specifically for and may be incorporated into particular software. The agent will then include the address of a particular location maintained by the software publisher that corresponds to the software."

For the feature of claim 17 see claim 17 rejection. For the rest of claim 29 feature see claim 6 rejection.

agent and by the at least one of a plurality of update agents; and
employing the security key for at least one of the following: secure communication, encryption, and decryption of data and messages, during communication with external systems.

30. The method according to claim 17, further comprising mapping at least one of update agent names, update agent address locations, types of updates that the update agents are adapted to process, and provisioning status of the update agents for all available update agents in the electronic device.

31. The method according to claim 17, wherein the electronic device comprises at least one of the following: a plurality of mobile electronic devices, and wherein the plurality of mobile electronic devices comprise at least one of a mobile cellular phone handset, a personal digital assistant, a pager, an MP3 player, and a digital camera.

32. An electronic device operable in an electronic device network, the electronic device comprising:
non-volatile memory comprising a first version of code;
communication circuitry for receiving, from at least one server in the electronic device network, update information having an associated type;
code resident in and executable by the electronic device, the code comprising a

For the feature of claim 17 see claim 17 rejection. For the rest of claim 30 feature see claim 15 rejection.

For the feature of claim 17 see claim 17 rejection. For the rest of claim 31 feature see claim 16 rejection.

Both Lee and Meyerson's disclosures teach the features of claim 32, see claims 1, 2, and 3 rejections.

plurality of update agents selectable to cause processing of a corresponding type of received update information, to update a related code portion of the first version of code to an updated version; wherein the processing modifies the related code portion of the first version of code to produce the updated version; and

wherein an update agent is selected to perform an update based upon the type of the received update information.

33. The electronic device according to claim 32 wherein the communication circuitry comprises a cellular network interface.

34. The electronic device according to claim 32 wherein the update information comprises an update package.

35. The electronic device according to claim 32 wherein a portion of the non-volatile memory comprises provisioned data received from at least one of the plurality of servers.

36. The electronic device according to claim 35 wherein the provisioned data comprises at least one entry corresponding to one of the plurality of update agents.

37. The electronic device according to claim 35 wherein programming of provisioned data is performed during

For the feature of claim 32 see claim 32 rejection. For the rest of claim 33 feature see claim 5 rejection.

For the feature of claim 32 see claim 32 rejection. For the rest of claim 34 feature see claim 7 rejection, where update agent is the same as update package.

For the feature of claim 32 see claim 32 rejection. For the rest of claim 35 feature see claims 1, 2 and 7 rejections.

For the feature of claim 32 see claim 32 rejection. For the rest of claim 36 feature see claim 7 rejection, where 'type of update agent' is the provisioned data.

For the feature of claim 32 see claim 32 rejection. For the rest of claim 37 feature see claim 5 rejection.

programming of information related to a wireless service subscription.

38. (New) The electronic device according to claim 35 wherein provisioned data comprises a universal resource locator of a server on which a corresponding type of update information is stored.

For the feature of claim 35 see claim 35 rejection. For the rest of claim 37 feature see claim 12 rejection.

39. (New) The electronic device according to claim 35 wherein provisioned data comprises security information enabling update of the related code portion.

For the feature of claim 35 see claim 35 rejection. For the rest of claim 37 feature see claims 6 and 28 rejections.

7. Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2004/0031029 by Lee et al., hereinafter "Lee"; in view of prior art of record, US 6,976,251, by **Meyerson**, hereinafter "Meyerson"; further in view of US Patent No. 5,708,776 by Dan Kikinis (hereinafter "Kikinis").

CLAIM

8. The network according to claim 1, wherein one of the plurality of update agents is designated a primary update agent and another of the plurality of update agents is designated as a secondary update agent, and wherein the primary update agent is used to perform updates during one of power up and reboot of the electronic device and the secondary update agent is used to perform updates not requiring electronic device rebooting.

Lee/ Meyerson / Kikinis

For the feature of claim 1 see claim 1 rejection. Lee and Meyerson teach all aspects of claim 8, but he does not mention 'Primary update agent and secondary update agent' specifically, however, Kikinis teaches it in an analogous prior art. All of their disclosures are for updating agents cross network and reboot of an electronic device. See Kikinis' title, "Automatic recovery for network appliances" in particular, see Kikinis column 1, lines 53-59, "a **primary boot partition** on the mass storage device, comprising

primary operating software and primary application software for execution by the CPU in **booting** the network appliance and placing it in operation performing its application; a **secondary boot partition** on the mass storage device, comprising secondary operating software and secondary application software; and an automatic recovery routine on the non-volatile storage device.”

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Lee and Meryerson’s disclosures of the updating software for networked devices by using Primary Update/Secondary Update (while there are plurality of update agents) taught by Kikinis, for the purpose of initiating necessary reboot (Kikinis Abstract, line 3).

23. The method according to claim 17, further comprising:

- designating a primary update agent and a secondary update agent;

- using the primary update agent to perform updates during one of the following: power up and reboot of the electronic device; and

- using the secondary update agent to perform updates not requiring electronic device rebooting.

For the feature of claim 17 see claim 17 rejection. For the rest of claim 19 feature see claim 8 rejection.

8. Claims 5, 9, 20, and 24 are rejected under 35 U.S.C. 103(a) as being obvious over US 2004/0031029 by Lee et al., hereinafter “Lee”, in view of prior art of

record, US Patent No. 6,976,251, by **Meyerson**, hereinafter “Meyerson”; further in view of US 2003/0065738 by Yang et al., hereinafter “Yang”.

CLAIM

5. The network according to claim 4, wherein the number assignment module programming activity comprises at least one of over-the-air service provisioning (OTASP) activity and over-the-air parameter administration (OTAPA) activity.

Lee/ Meyerson / Yang

Lee teaches all aspects of claim 5, but he does not mention ‘over-the-air service’ specifically, however, Yang teaching is for updating mobile node devices, see Yang’s Abstract “An apparatus, system and method are provided for **OTA downloading**, configuring and updating application programs stored in a memory of mobile communication device.”; and paragraph [0027], “Another aspect of the present invention discloses systems and methods for distributing application-based programs to **mobile devices over-the-air (OTA)** using Hyper Text Transfer Protocol (HTTP) and File Transfer Protocol (FTP).” Also for **over-the-air service** provisioning activity are disclosed in.

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Lee and Meyerson’s disclosures of the updating software for networked devices by using OTA taught by Yang, for the purpose of downloading to mobile device using wireless media (see Yang’s paragraph [0051]).

9. The network according to claim 1, wherein the electronic device is adapted to display a list of available update agents to an end-user and solicit selection of an update agent to be used

For the feature of claim 1 see claim 1 rejection. Lee and Meyerson teach all aspects of claim 9, but he does not mention ‘display a list of available update agents to an end user’

to update at least one of software and firmware.

specifically, however, Yang teaches it in an analogous prior art. See Yang's paragraph [0041], "Examples of application programs may be programs that manage and display to a mobile user, current weather information, traffic information, stock information, local theater information, restaurant and other entertainment information, or any other information a mobile user may desire (*display a list of available update agents, different agents update different type of information*)".

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Lee and Meyerson's disclosures of the updating software for networked devices by using display a list of available update agents to an end-user (while there are plurality of update agents) taught by Yang, for the purpose of providing user interactive capability. (Yang's paragraph [0066]).

20. The method according to claim 19, wherein the number assignment module programming activity comprises at least one of the following: over-the-air service provisioning (OTASP) activity and over-the-air parameter administration (OTAPA) activity.

For the feature of claim 17 see claim 17 rejection. For the rest of claim 20 feature see claim 5 rejection.

24. The method according to claim 17, further comprising: displaying a list of available update agents to an end-user; and soliciting selection of an update

For the feature of claim 17 see claim 17 rejection. For the rest of claim 24 feature see claim 9 rejection.

agent to be used to update at least one of software and firmware.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cole, US Patent No. 7,080,372, teaches a system and method are provided for determining whether to provide a software program update to one of a plurality of client processors. Each client processor has a copy of at least one of a plurality of client software programs. A respective set of system configuration attributes are sent from each client processor and stored in an administration server processor. Each set of system configuration attributes is transmitted to a selection server processor. A respective update recognizer program and software program update corresponding to each respective one of the plurality of client software programs are next sent to the administration server processor.

Heisey et al., US 2004/0015940 A1, teaches a tool for replacing a code image in an embedded device including a control program for issuing device commands in order to replace a code image within the embedded device. A monitoring program, operating asynchronously with respect to the control program, generates event indications in response to detecting a change in an attribute associated with the embedded device.

10. The following summarizes the status of the claims:

35 USC § 103 rejection: Claims 1-39

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Ching Chow whose telephone number is 571-272-3693. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature of relating to the status of this application should be directed to the **TC2100 Group receptionist: 571-272-2100**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chih-Ching Chow
Examiner
Art Unit 2191
July 2, 2007

CC

MARY STEELMAN
PRIMARY EXAMINER

